

- (iii) reduces or prevents IL-3-mediated survival or plasmacytoid dendritic cells (pDCs);
 - (iv) reduces or prevents activation of human peripheral blood eosinophils by IL-5 as determined by assessing change in forward scatter assessed by flow cytometry;
 - (v) reduces or prevents survival of human peripheral blood eosinophils in the presence of IL-5 and/or GM-CSF and/or IL-3;
 - (vi) reduces or prevents IL-3-induced tumor necrosis factor (TNF) release from human mast cells;
 - (vii) reduces or prevents IL-3-induced IL-13 release from human mast cells;
 - (viii) reduces or prevents potentiation of IgE-mediated IL-8 release from human mast cells by IL-3 and/or IL-5 and/or GM-CSF; or
 - (ix) reduces or prevents formation of colony forming units-granulocytes-macrophages (CFU-GM) by CD34⁺ human bone marrow cells cultured in the presence of stem cell factor (SCF), GM-CSF, IL-3 and IL-5.
- 14.** The CD131-binding protein of claim 1, wherein if the V_H and V_L are in a single polypeptide chain, the protein is:
- (i) a single chain Fv fragment (scFv);
 - (ii) a dimeric scFv (di-scFv);
 - (iii) one of (i) or (ii) linked to a constant region of an antibody, Fc or a heavy chain constant domain (C_H) 2 and/or C_H3 ; or
 - (iv) one of (i) or (ii) linked to a protein that binds to an immune effector cell, or if the V_H and V_L are in separate polypeptide chains the protein is:
 - (i) a diabody;
 - (ii) a triabody;
 - (iii) a tetrabody;
 - (iv) a Fab;
 - (v) a $F(ab')_2$;
 - (vi) a Fv;
 - (vii) one of (i) to (vi) linked to a constant region of an antibody, Fc or a heavy chain constant domain (C_H) 2 and/or C_H3 ;
 - (viii) one of (i) to (vi) linked to a protein that binds to an immune effector cell; or
 - (ix) an antibody.
- 15.-16.** (canceled)
- 17.** The CD131-binding protein of claim 1, which is conjugated to another compound.
- 18.** A nucleic acid encoding the CD131-binding protein of claim 1.
- 19.** An expression construct comprising the nucleic acid of claim 18.

20. An isolated or recombinant cell comprising the expression construct of claim 19.

21. An isolated or recombinant cell expressing the CD131-binding protein of claim 1.

22. A composition comprising the CD131-binding protein of claim 1 and a pharmaceutically acceptable carrier.

23. A method for treating or preventing a CD131-mediated condition in a subject, the method comprising administering the CD131-binding protein of claim 1, wherein the CD131-mediated condition is an autoimmune condition, an inflammatory condition, an allergic condition or cancer.

24.-26. (canceled)

27. A method for localizing and/or detecting and/or diagnosing and/or prognosing a CD131-mediated condition associated with a cell expressing CD131, the method comprising detecting in vivo the CD131-binding protein of claim 17 bound to the CD131 expressing cell, if present, wherein the CD131-binding protein is conjugated to a detectable tag and wherein the method additionally comprises administering the CD131-binding protein to the subject.

28. (canceled)

29. A method for detecting CD131 or a cell expressing same in a sample, the method comprising contacting the sample with the CD131-binding protein of claim 1 such that a complex forms and detecting the complex, wherein detection of the complex is indicative of CD131 or a cell expressing same in the sample.

30. A method for diagnosing or prognosing a CD131-mediated condition, the method comprising performing the method of claim 29 to detect CD131 or a cell expressing same in a sample from a subject, wherein detection of the CD131 or cell expressing same is diagnostic or prognostic of the condition.

31. (canceled)

32. A method for depleting or reducing eosinophils and/or treating eosinophilia in a subject, the method comprising neutralizing signaling by interleukin (IL) 3, IL-5 and granulocyte-macrophage colony stimulating factor (GM-CSF) in the subject.

33. (canceled)

34. The method of claim 32 comprising administering one or more inhibitors of IL-3 and/or IL-5 and/or GM-CSF to the subject.

35. A method for depleting or reducing eosinophils and/or treating eosinophilia in a subject, the method comprising administering the CD131-binding protein of claim 1 to the subject.

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